

EXAMINER'S AMENDMENT

This Office Action is responsive to the RCE filed on Apr. 15, 2009.

Claim 1 has been amended. Claims 2 and 5 have been canceled. Thus, claims 1, 3 and 4 are pending in this application.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Apr. 15, 2009 has been entered.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Patrick A. Hilsmier (Reg. No. 46,034) on May 21, 2009. During telephone conversation with Mr. Hilsmier, an agreement was reached to amend claim 1.

The application has been amended as follows:

Claim 1: (*Currently Amended*)

-- A rotary fluid device comprising:

a rotation mechanism including a cylinder having an annular cylinder chamber and an annular piston disposed in the cylinder chamber to be eccentric relative to the cylinder, the annular piston dividing the cylinder chamber into an outer working chamber and an inner working chamber, and the piston being C-shaped to form a gap and having a swing bushing therein;

a blade disposed in the cylinder chamber to divide each of the inner and outer working chambers into a high-pressure space and a low-pressure space, the cylinder and the piston being relatively movable by rotation of a driving shaft, the blade extending between an inner peripheral wall surface and an outer peripheral wall surface of the cylinder chamber through the gap of the piston, and the swing bushing being in contact with the piston and the blade such that the blade is reciprocatable and the blade is swingable relative to the piston; and

a suction mechanism configured to introduce refrigerant into the annular cylinder chamber,

one of the inner and outer working chambers being a compression chamber which compresses and discharges fluid with a progression of a relative movement between the cylinder and the piston, the compression chamber being in fluid communication with a suction pipe arranged to supply the compression chamber with fluid and a discharge pipe arranged to receive compressed fluid from the compression chamber;

the other of the inner and outer working chambers being an expansion chamber which expands and discharges fluid with a progression of a relative movement between the cylinder and the piston with expansion work of the expansion chamber being recovered to assist in driving the driving shaft, the expansion chamber being in fluid communication with an inlet pipe arranged to supply the expansion chamber with fluid and an outlet pipe arranged to discharge expanded fluid from the expansion chamber;

the suction mechanism being configured to introduce refrigerant into the expansion chamber from the inlet pipe in a predetermined rotation angle range of the piston such that a refrigerant expansion process in the expansion chamber occurs in a predetermined range within each rotation cycle of the piston relative to the cylinder, and

the suction mechanism including a first path and a second path, the first path having one end communicating with an inlet port that is open to the expansion chamber and an other end having an opening communicating with the inlet pipe, the second path having an arc shape that is curved around a shaft center of the drive shaft, ~~with the second path being configured and communicating between the inlet pipe and the first path~~ to cause the refrigerant to flow into the expansion chamber ~~when the other end is~~ at a predetermined rotation angle range of the piston. --

Allowable Subject Matter

3. Claims 1, 3 and 4 are allowed.
4. The following is an examiner's statement of reasons for allowance: the prior art fails to disclose or render obvious the claimed combination including: the suction mechanism having an

one end of the first path communicating with an inlet port that is open to the expansion chamber and an other end of the first path having an opening communicating with the inlet pipe, the second path having an arc shape that is curved around a shaft center of the drive shaft and communicating between the inlet pipe and the first path such that a refrigerant expansion process in the expansion chamber occurs in a predetermined range within one rotation cycle of the piston relative to the cylinder.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

/Theresa Trieu/
Primary Examiner, Art Unit 3748